

AMENDMENTS TO THE CLAIMS

1 1. (Currently amended) A user interface for displaying database classifiers
2 organized with multiple hierarchy levels, the user interface comprising:
3 a root node navigation bar representing a root hierarchy level of the multiple hierarchy
4 levels; and
5 multiple sub-node navigation bars stacked below the root node navigation bar, each sub-
6 node navigation bar representing a sub-node from a selected level of the multiple hierarchy
7 levels, wherein multiple sub-nodes represent database classifiers of database objects and a
8 plurality of sub-nodes in the multiple hierarchy levels represent the same database classifier
9 representing the same database object;
10 wherein the sub-node navigation bars display sub-nodes on [[the]] a path from the root
11 hierarchy level to the one or more sub-nodes having the lowest selected hierarchy level, [[and]]
12 wherein the user interface hides siblings of the displayed sub-nodes for the hierarchy levels
13 between the root level and the hierarchy level of the one or more sub-nodes having the lowest
14 selected hierarchy level, and each displayed sub-node represents a distinct classifier in the path.

1 2. (Original) The user interface of Claim 1 further comprising:
2 information associated with a sub-node, the sub-node having the lowest selected
3 hierarchy level.

1 3. (Original) The user interface of Claim 2 wherein the hierarchy levels
2 represent non-homogeneous classifiers of the information and wherein the information
3 associated with the sub-node having the lowest selected hierarchy level has one or more
4 homogeneous attributes, the user interface further comprising one or more tabs associated with
5 the one or more attributes of the information, each tab operable to select display of information
6 having an attribute associated with the tab.

1 4. (Original) The user interface of Claim 1 wherein one or more of the
2 navigation bars is operable to select display of labels for nodes from the root node to sub-nodes
3 having a hierarchy level one level lower than the node associated with the selected navigation
4 bar.

- 1 5. (Original) The user interface of Claim 1 implemented with one of Win32,
2 JavaSwing or DHTML.
- 1 6. (Original) The user interface of Claim 1 presented through a browser.
- 1 7. (Original) The user interface of Claim 6 wherein the browser is populated
2 using XML data islands.
- 1 8. (Original) The user interface of Claim 1 further comprising an activation icon
2 associated with a navigation bar, the activation icon operable to display the hierarchy level
3 associated with the sub-node of the navigation bar.
- 1 9. (Original) The system of Claim 8 wherein the activation icon is further
2 operable to display sub-nodes of the activated icon.
- 1 10. (Previously Presented) The system of Claim 8 wherein the activation icon
2 is further operable to hide sibling nodes of the activated icon.
- 1 11. (Currently amended) A method for presenting database classifiers organized by
2 hierarchy levels, the method comprising:
3 displaying a first hierarchy level having a first hierarchy database classifier label;
4 displaying a second hierarchy level having multiple second hierarchy database classifier
5 labels;
6 activating one of the second hierarchy database classifier labels;
7 displaying information associated with the activated database classifier label or, if
8 available, a third hierarchy level having multiple third hierarchy database classifier labels; and
9 hiding display of the unactivated second hierarchy database classifier labels;
10 wherein multiple database classifier labels represent database objects and a plurality of
11 database classifier labels in multiple hierarchy branches are the same database classifier label
12 representing the same database object and each displayed classifier label is displayed only once
13 in each displayed hierarchy.

1 12. (Original) The method of Claim 11 wherein activation of the second
2 hierarchy label displays information associated with the activated label, the information indexed
3 according to one or more attributes, the method further comprising:
4 displaying multiple index tabs proximate to the information, each index tab associated
5 with one or more of the attributes;
6 activating one of the multiple index tabs; and
7 displaying the information associated with the one or more attributes of the activated
8 index tab.

1 13. (Original) The method of Claim 12 wherein one or more of the displayed
2 hierarchy levels are stacked as navigation bars in order from a root level to a lowest hierarchy
3 level.

1 14. (Original) The method of Claim 13 wherein the displayed information is
2 stacked below the lowest hierarchy level.

1 15. (Original) The method of Claim 11 wherein activation of the second
2 hierarchy label displays the third hierarchy level having multiple third hierarchy labels, the
3 method further comprising:
4 displaying an activation icon associated with the first hierarchy label, the activation icon
5 operable to remove the multiple third hierarchy labels and to display the multiple second
6 hierarchy labels.

1 16. (Original) The method of Claim 12 further comprising:
2 displaying an activation icon;
3 activating the activation icon;
4 removing the multiple third hierarchy labels; and
5 displaying the multiple second hierarchy labels.

1 17. (Original) The method of Claim 11 wherein the hierarchy levels are displayed
2 as a stacked box metaphor.

1 18. (Currently amended) A computer system comprising:

2 a database having information classified by non-homogeneous classifiers organized as a
3 root node and multiple sub-nodes;
4 a display operable to present a user interface;
5 a control interfaced with the database and the display, the control operable to generate a
6 user interface for presentation on the display, the user interface having the root node and
7 predetermined sub-nodes stacked from highest to lowest hierarchy levels, the user interface
8 further operable to hide predetermined sub-nodes that are not relevant to the sub-node having the
9 lowest hierarchy level, wherein multiple sub-nodes represent database classifiers of database
10 objects, [[and]] a plurality of sub-nodes in the multiple hierarchy levels are the same database
11 classifier representing the same database object, and each displayed sub-node represents a
12 distinct classifier.

1 19. (Original) The computer system of Claim 18, the user interface further having
2 predetermined information stacked below the sub-node having the lowest hierarchy level, the
3 predetermined information associated with the sub-node having the lowest hierarchy level.

1 20. (Original) The computer system of Claim 19 wherein the information is
2 further indexed by an attribute, the user interface further having multiple index tabs associated
3 with the information and operable to display information having the attribute.

1 21. (Original) The computer system of Claim 20, the user interface further having
2 a scroll bar associated with the information and operable to scroll through the information
3 without affecting the presentation of the stacked nodes.

1 22. (Currently amended) A program product for displaying hierarchy levels of
2 database classifiers that organize the database classifiers with multiple nodes, the program
3 product comprising:
4 a storage medium that stores computer readable instructions; and
5 instructions stored on the storage medium, the instructions operable to command a
6 computer to display selected nodes from first, second or third hierarchy levels, the instructions
7 selecting for display the nodes of the first and second hierarchy levels display only the nodes of
8 the first and second hierarchy levels on a traversed path to the third hierarchy level, wherein
9 multiple nodes represent database classifiers of database objects, [[and]] a plurality of nodes in

10 the hierarchy levels represent the same database classifier representing the same database object,
11 and each displayed node represents a distinct classifier.

1 23. (Original) The program product of Claim 22 wherein the first hierarchy level
2 comprises the root node.

1 24. (Original) The program product of Claim 22 wherein the second hierarchy
2 level comprises multiple nodes, the instructions commanding the computer to display the one of
3 the multiple nodes of the second hierarchy level on the traversed path to the third hierarchy level
4 and to hide the sibling nodes of the displayed node.

1 25. (Original) The program product of Claim 22 wherein the third hierarchy level
2 comprises information associated with a selected one of the nodes of the second hierarchy level.

1 26. (Original) The program product of Claim 25 further comprising multiple
2 indices that organize the information of the third hierarchy level according to one or more
3 attributes.

1 27. (Original) The program product of Claim 22 wherein the third hierarchy level
2 comprises multiple nodes, the instructions further operable to accept a selection of one of the
3 multiple nodes of the third hierarchy level and to hide the sibling nodes of the selected third
4 hierarchy level node.

1 28. (Currently amended) An electronic display of database classifiers organized with
2 multiple hierarchy levels, the electronic display comprising:
3 a visual representation of a tree data structure having a root node and multiple descendant
4 nodes; and
5 a visual representation of an index of data associated with a selected descendant node;
6 wherein the visual representation of the tree data structure displays the descendant nodes
7 on the traversed path from the root node to the selected descendant node and conceals siblings of
8 the descendant nodes on the traversed path; and
9 wherein multiple descendant nodes represent database classifiers of database objects,
10 [[and]] a plurality of descendant nodes in the multiple hierarchy levels represent the same

11 database classifier representing the same database object, and each displayed node represents a
12 distinct classifier.

1 29. (Canceled)

1 30. (Previously Presented) The electronic display of Claim 28 wherein the
2 descendant nodes on the traversed path are selectable to display child nodes of the selected node.

1 31. (Previously Presented) The electronic display of Claim 28 wherein the
2 descendant nodes on the traversed path are selectable to display sibling nodes of the selected
3 node.

1 32. (Original) The electronic display of Claim 28 wherein the index comprises a
2 visual representation of data.

1 33. (Original) The electronic display of Claim 32 wherein the data nodes
2 represent non-homogeneous classifiers and the index represents a homogeneous attribute.

1 34. (Original) The electronic display of Claim 32 wherein the data is organized
2 according to one or more attributes.

1 35. (Original) The electronic display of Claim 34 wherein the data is represented
2 by tabs associated with the one or more attributes.

1 36. (Original) The electronic display of Claim 35 wherein selection of a tab
2 displays data associated with the tab and conceals other data associated with the selected
3 descendant node.

1 37. (Original) The electronic display of Claim 28 wherein the root node and
2 descendent nodes are stacked in hierarchy level order.

1 38. (Currently amended) A combination tree data structure and index capable of
2 electronic visual display of database classifiers organized by hierarchy levels, the combination
3 tree data structure and index comprising:

4 a tree data structure having one or more nodes associated with each hierarchy level; and

5 an index of selected information associated with a selected one of the nodes, the index
6 having a plurality of indices, each of the plurality of indices capable of displaying predetermined
7 parts of the selected information,

8 wherein the siblings of the selected node and the siblings of [[the]] ancestors of the
9 selected node are not displayed; and

10 wherein multiple sibling nodes represent database classifiers of database objects, [[and]]
11 a plurality of sibling nodes in the hierarchy levels represent the same database classifier
12 representing the same database object, and the selected node, the ancestors of the selected node ,
13 and any children of the selected node represent distinct classifiers.

1 39. (Canceled)

1 40. (Original) The combination tree data structure and index of Claim 38 wherein
2 each indice is represented by a tab.

1 41. (Original) The combination tree data structure and index of Claim 38 wherein
2 the hierarchy levels correspond to non-homogeneous classifiers of the information.

1 42. (Original) The combination tree data structure and index of Claim 38 wherein
2 the indices correspond to one or more homogeneous attributes of the information.

1 43. (Currently amended) A method of electronically displaying database classifiers
2 organized by hierarchy levels, the method comprising:

3 displaying a tree structure having a plurality of nodes representing database classifiers;

4 selecting a node;

5 displaying the tree structure with only the selected node and the direct ancestors of the
6 selected node, wherein the displayed tree structure represents distinct database classifiers; and

7 displaying an index associated with the selected node, the index having a plurality of
8 indices, each of the plurality of indices having associated information representing a database
9 object;

10 wherein multiple sibling nodes represent database classifiers of database objects, [[and]]
11 a plurality of sibling nodes in the hierarchy levels represent the same database classifier
12 representing the same database object.

1 44. (Original) The method of Claim 43 further comprising:
2 displaying the tree structure with only the selected node and the direct ancestors of the
3 selected node.

1 45. (Original) The method of Claim 44 wherein the tree structure is displayed as
2 a stacked box metaphor.

1 46. (Original) The method of Claim 45 further comprising:
2 collapsing a node of the stacked box metaphor; and
3 displaying the tree structure with the collapsed node, the children of the collapsed node
4 and the direct ancestors of the collapsed node.

1 47. (Original) The method of Claim 43 wherein the nodes represent non-
2 homogeneous classifiers and the index represents homogeneous attributes.